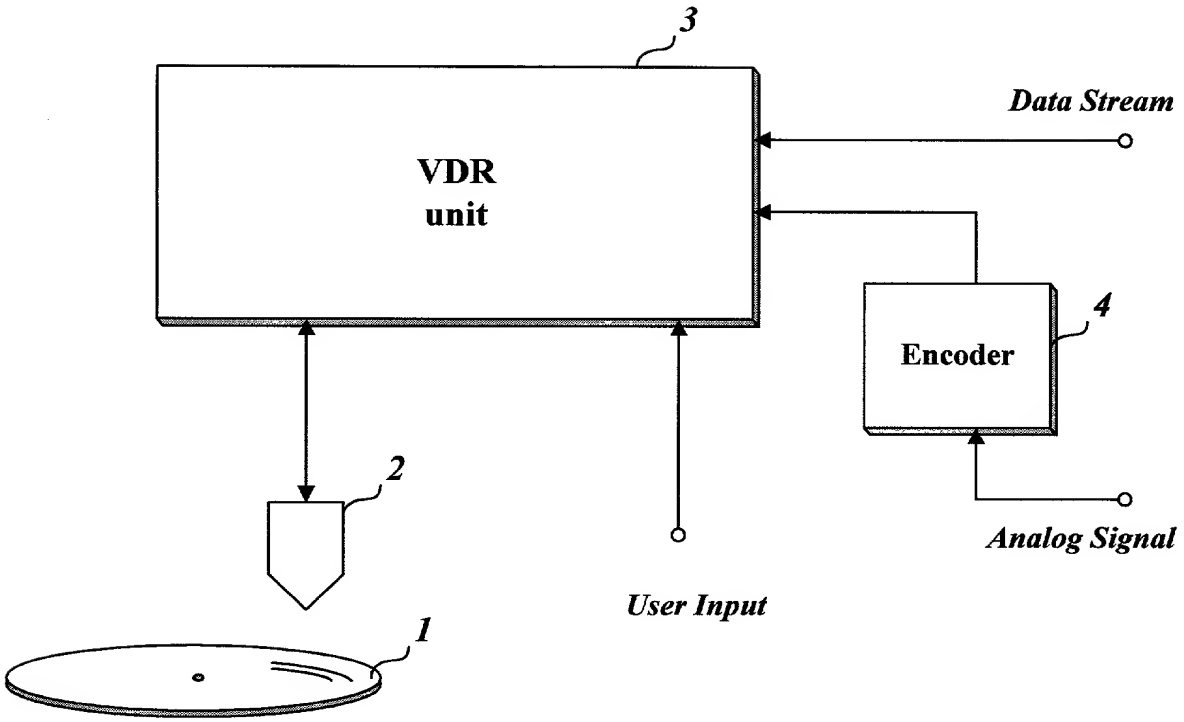
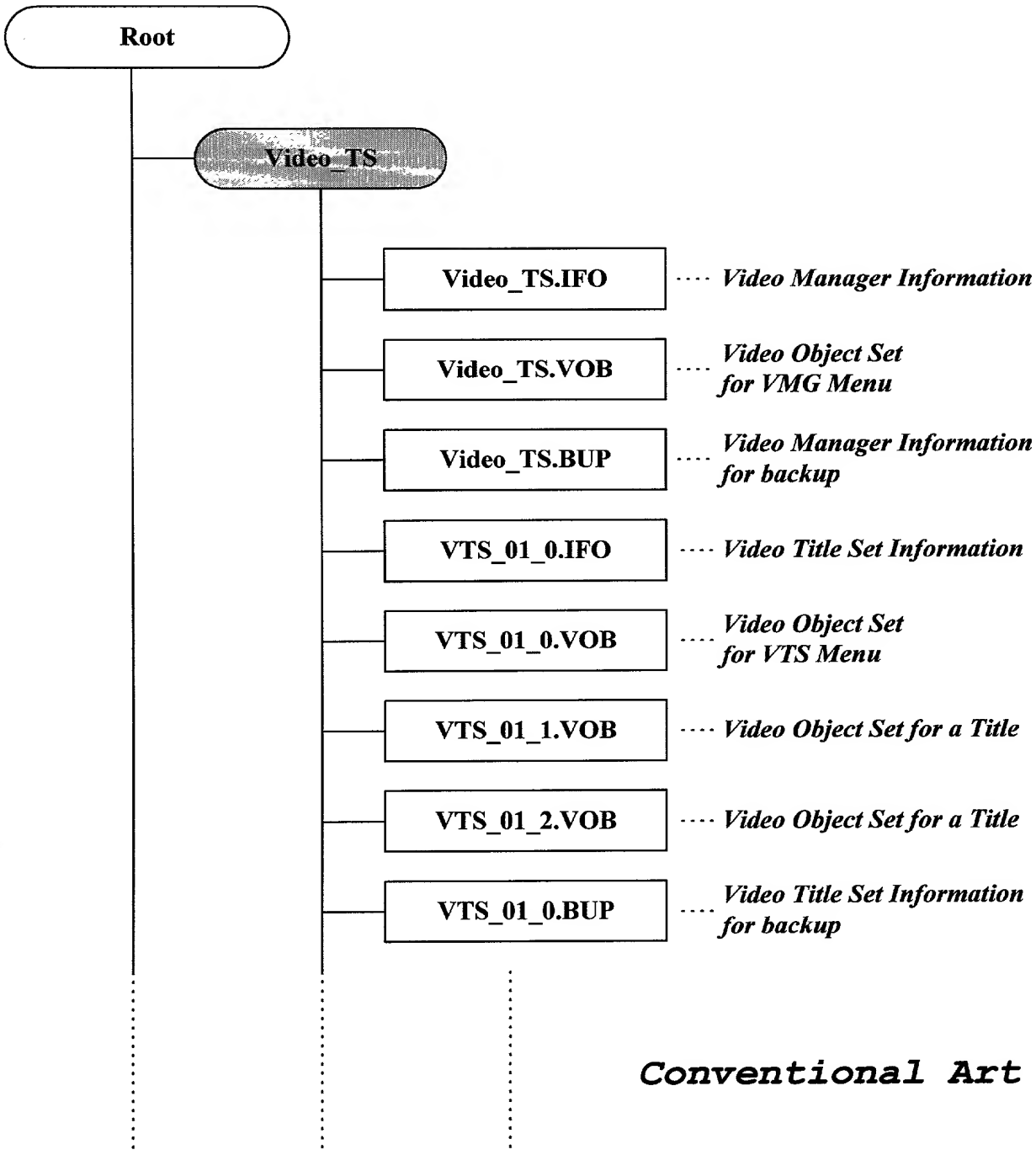
FIG. 1



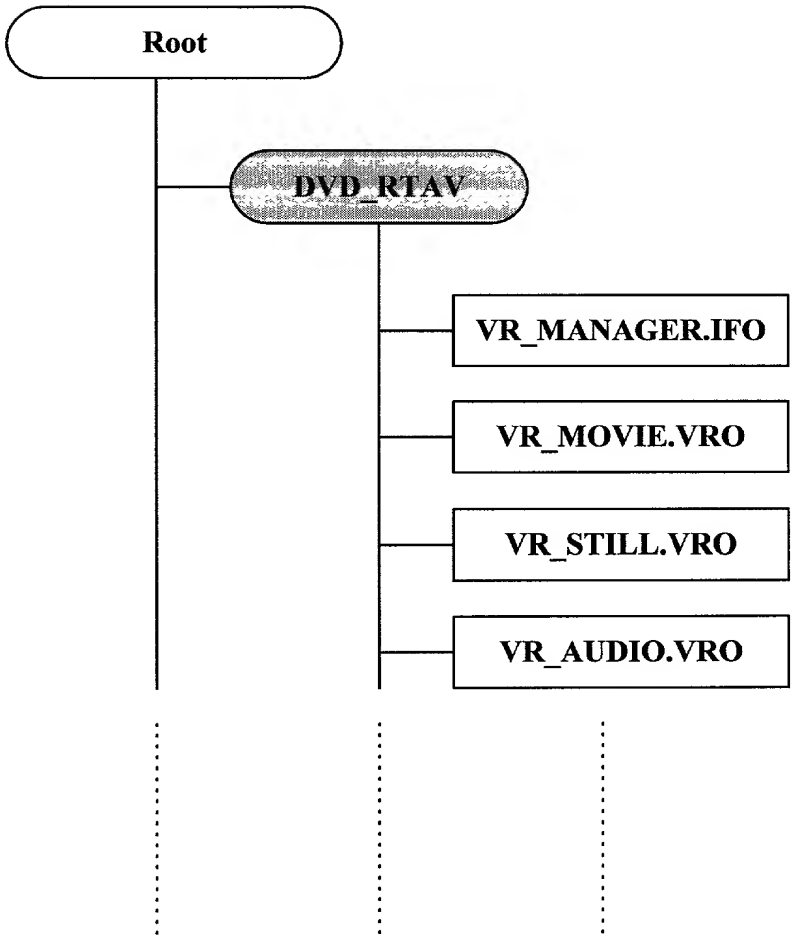
Conventional Art

FIG. 2



Conventional Art

FIG. 3



Conventional Art

FIG. 4A

File Identifier Descriptor		
RBP	**Length**	**Field Name**
0	16	Descriptor Tag
16	2	File Version Number
18	1	File Characteristics
19	1	Length of File Identifier(= L_FI)
20	16	ICB (file entry address)
36	2	Length of Implementation Use(= L_IU)
38	L_IU	Implementation Use
a	L_FI	Name of File Identifier (= N_FI)
b	c	Padding

Conventional Art

FIG. 4B

File Characteristics (1Byte)	
0	Existence
1	Directory
2	Deleted
3	Parent
4	Meta-data
5 - 7	Reserved for future Use ('0')

Conventional Art

FIG. 5A

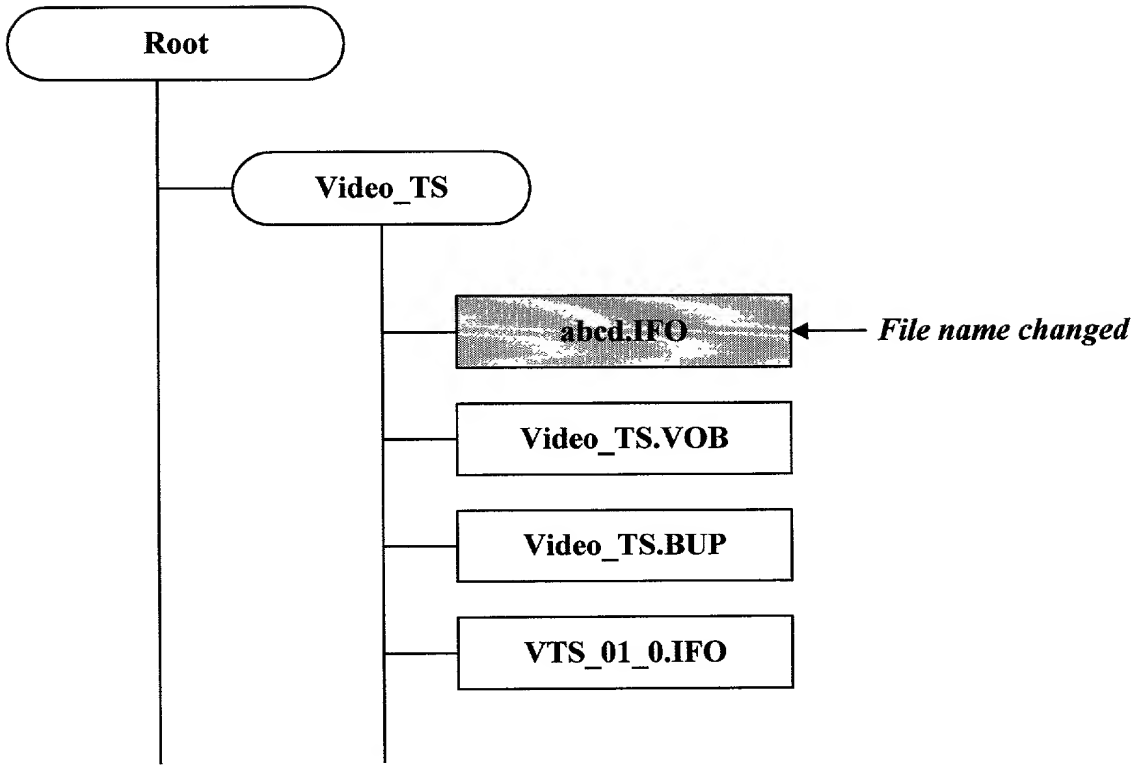

Root
Video_TS
abcd.IFO
File name changed
Video_TS.VOB
Video_TS.BUP
VTS_01_0.IFO

FIG. 5B

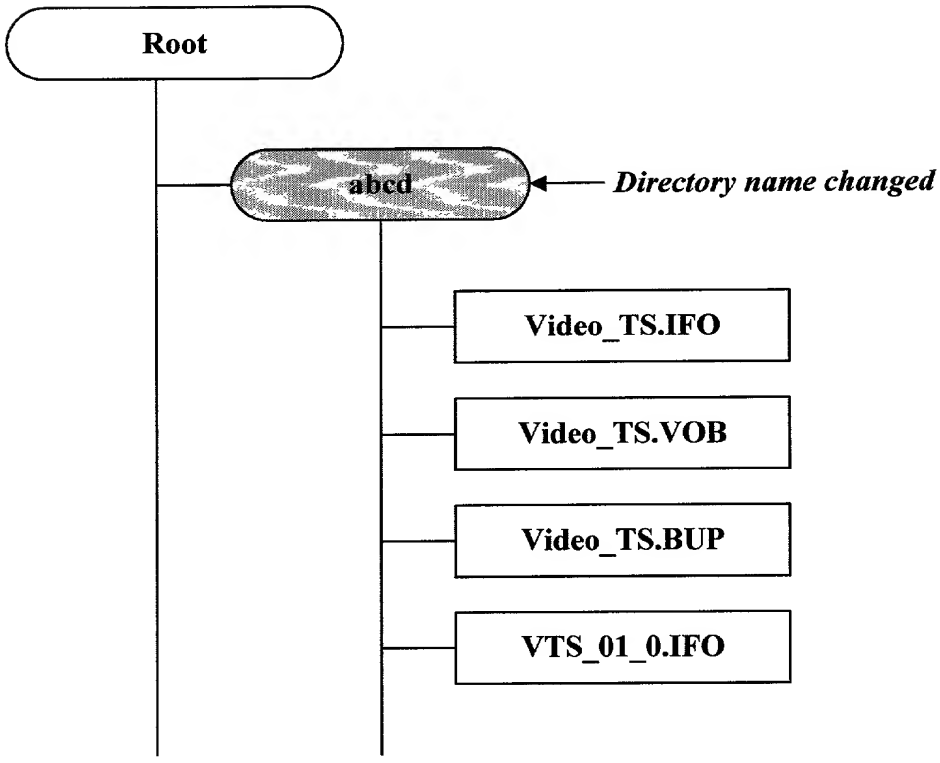

Root
abcd
Directory name changed
Video_TS.IFO
Video_TS.VOB
Video_TS.BUP
VTS_01_0.IFO

FIG. 5C

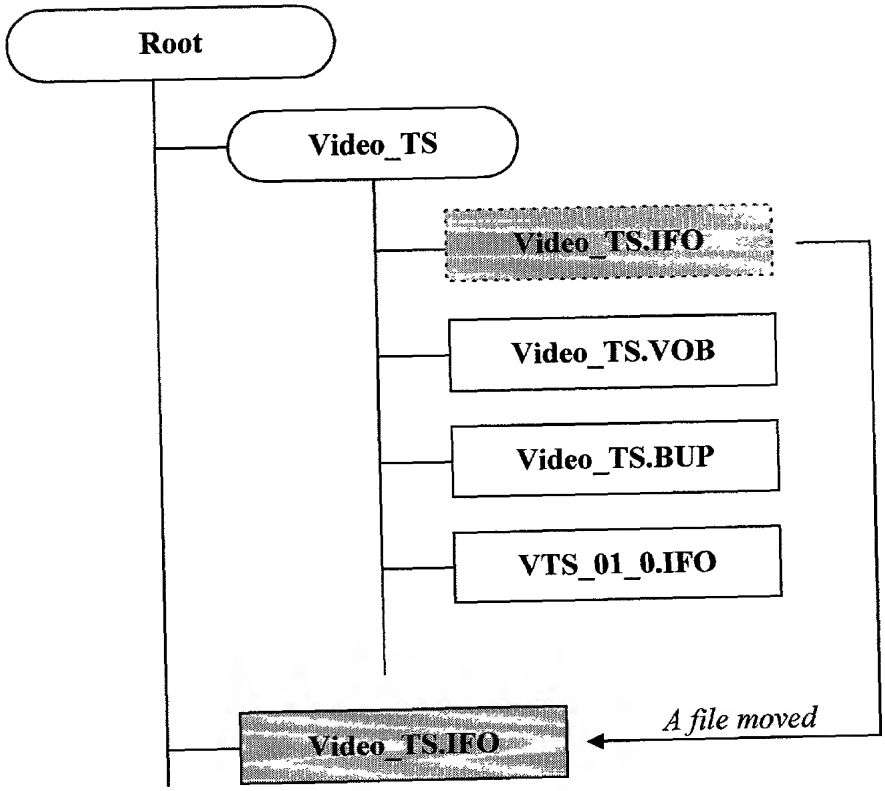

Root
Video_TS
Video_TS.IFO
Video_TS.VOB
Video_TS.BUP
VTS_01_0.IFO
Video_TS.IFO
A file moved

FIG. 5D

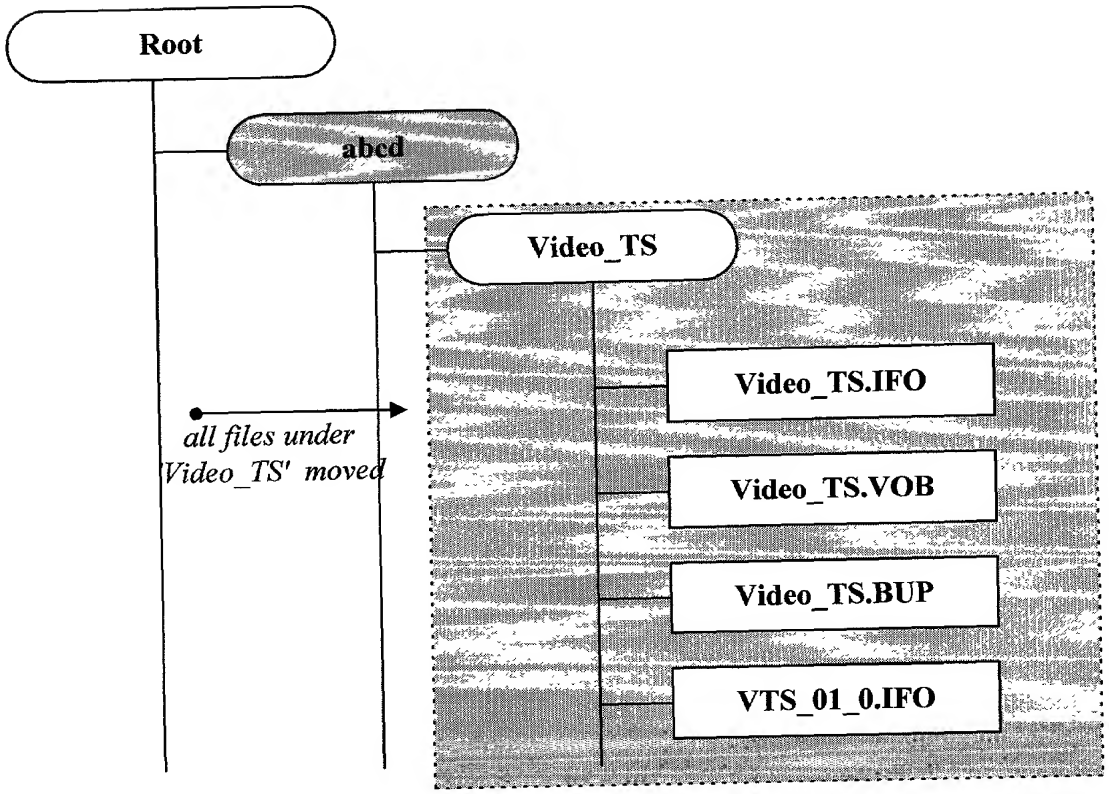

Root
abcd
Video_TS
all files under
Video_TS' moved
Video_TS.IFO
Video_TS.VOB
Video_TS.BUP
VTS_01_0.IFO

FIG. 6

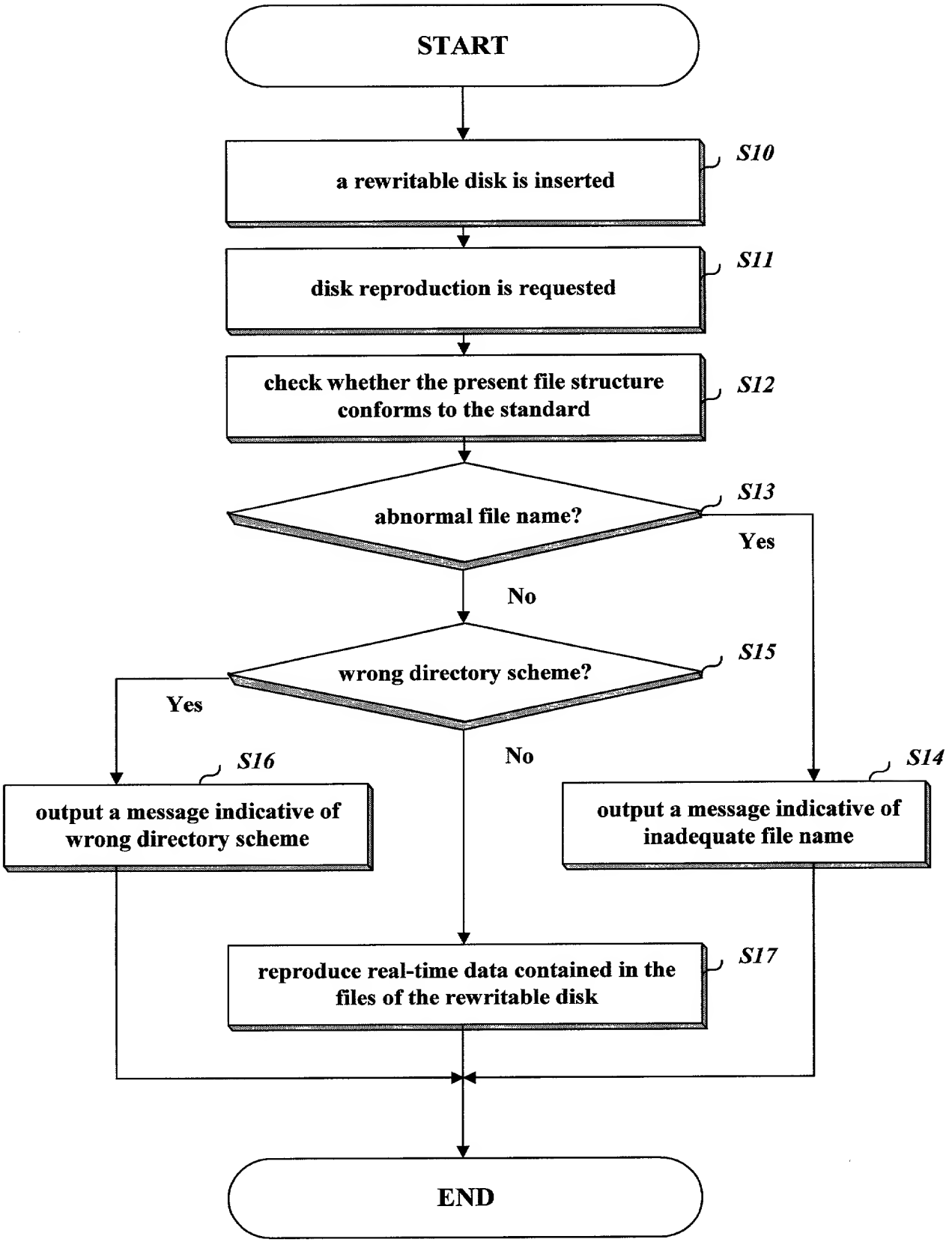

START
a rewritable disk is inserted
S10
disk reproduction is requested
S11
check whether the present file structure conforms to the standard
S12
abnormal file name?
S13
Yes
No
wrong directory scheme?
S15
Yes
No
S16
output a message indicative of wrong directory scheme
S14
output a message indicative of inadequate file name
reproduce real-time data contained in the files of the rewritable disk
S17
END

FIG. 7

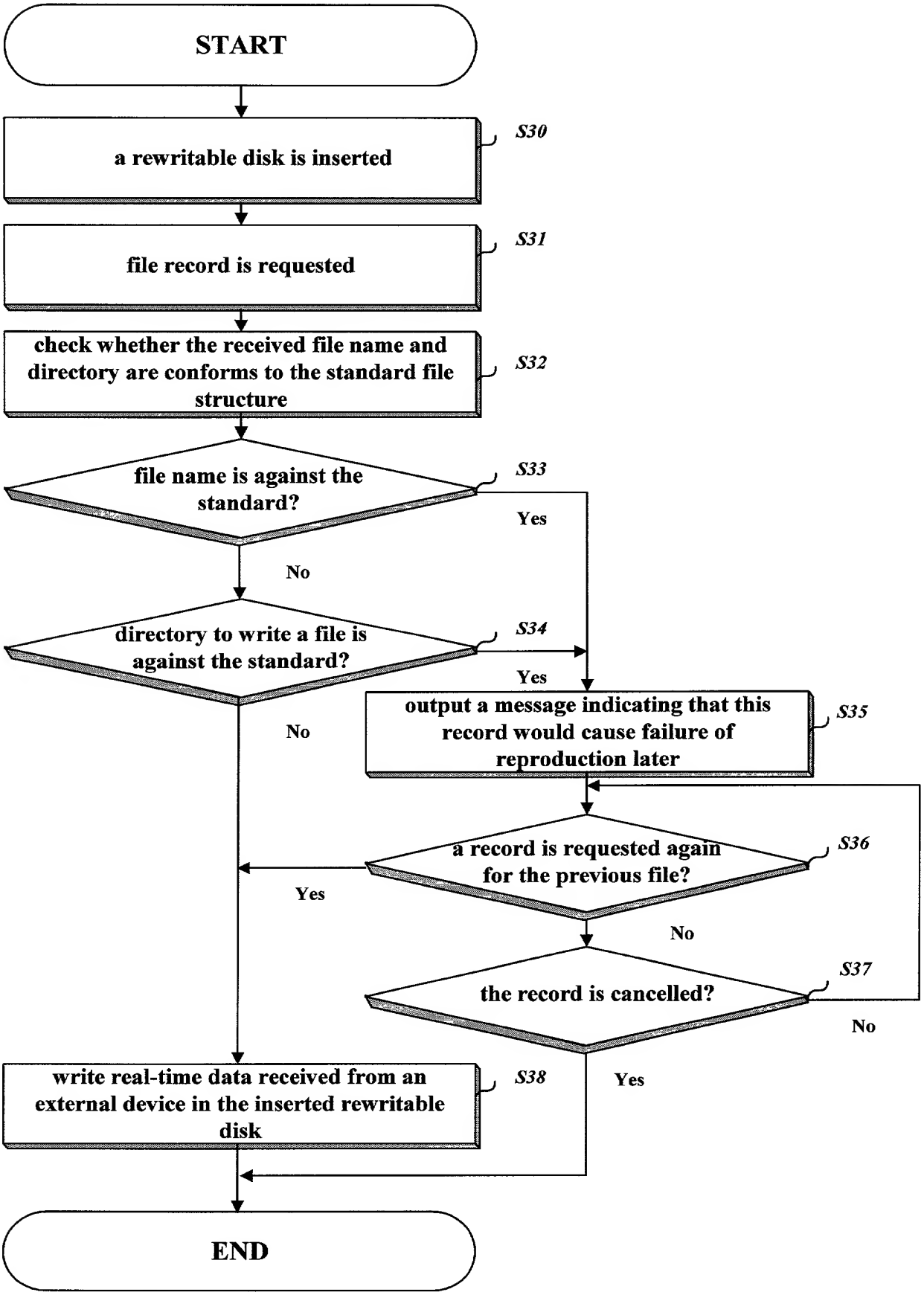
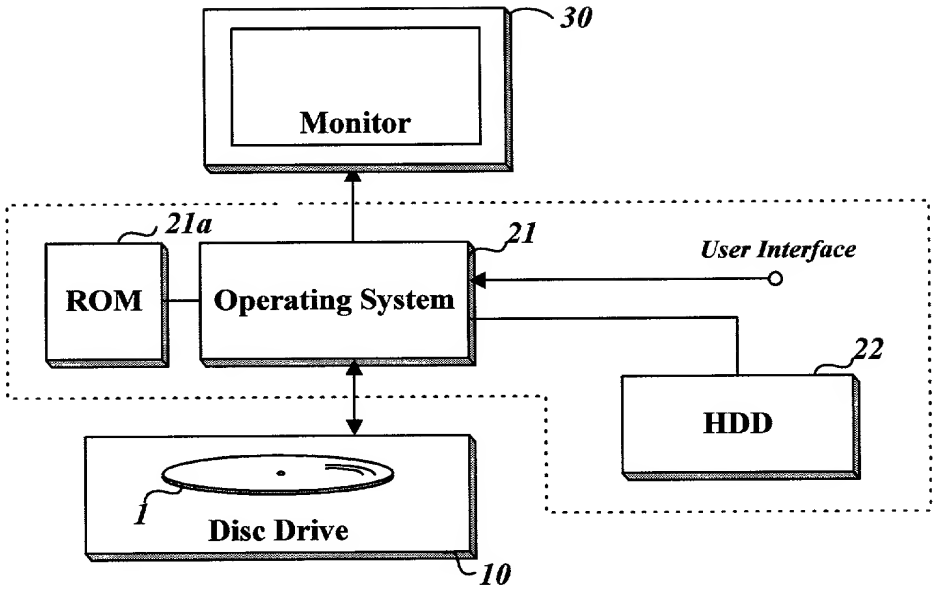

START
a rewritable disk is inserted
S30
file record is requested
S31
check whether the received file name and directory are conforms to the standard file structure
S32
file name is against the standard?
S33
Yes
No
directory to write a file is against the standard?
S34
Yes
No
output a message indicating that this record would cause failure of reproduction later
S35
a record is requested again for the previous file?
S36
Yes
No
the record is cancelled?
S37
No
Yes
write real-time data received from an external device in the inserted rewritable disk
S38
END

FIG. 8



Conventional Art

FIG. 9A

File Entry		
RBP	Length	Name
0	16	Descriptor Tag
16	20	ICB Tag
36	4	Uid
⋮	⋮	⋮
176	L_EA	Extended Attributes
[L_EA+176]	L_AD	Allocation Descriptors

Conventional Art

FIG. 9B

ICB Tag		
RBP	Length	Name
0	4	Prior Recorded Number of Direct Entries
4	2	Strategy Type
6	2	Strategy Parameter
8	2	Maxium Number of Entries
10	1	Reserved
11	1	File Type
12	6	Parent ICB Location
18	2	Flags

Conventional Art

FIG. 10

File Type	
Type	Interpretation
0	Shall mean that the interpretation of the file is not specified by this field
1	Shall mean that this is an Unallocated Space Entry
⋮	⋮
249	Shall mean that this is real time file
250~255	Reserved for furture standardiation

FIG. 11

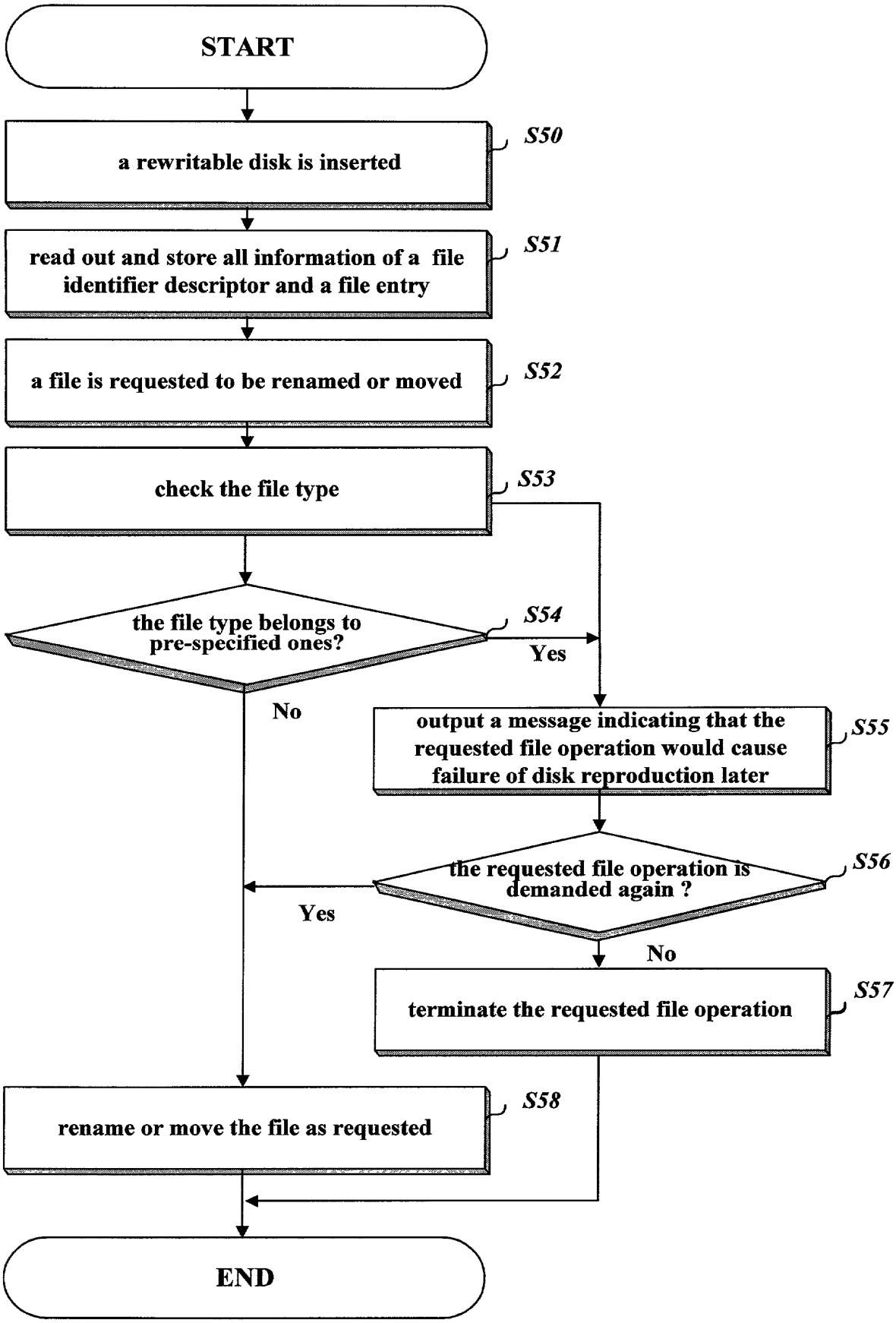

START
a rewritable disk is inserted
S50
read out and store all information of a file identifier descriptor and a file entry
S51
a file is requested to be renamed or moved
S52
check the file type
S53
the file type belongs to pre-specified ones?
S54
Yes
No
output a message indicating that the requested file operation would cause failure of disk reproduction later
S55
the requested file operation is demanded again ?
S56
Yes
No
terminate the requested file operation
S57
rename or move the file as requested
S58
END

FIG. 12

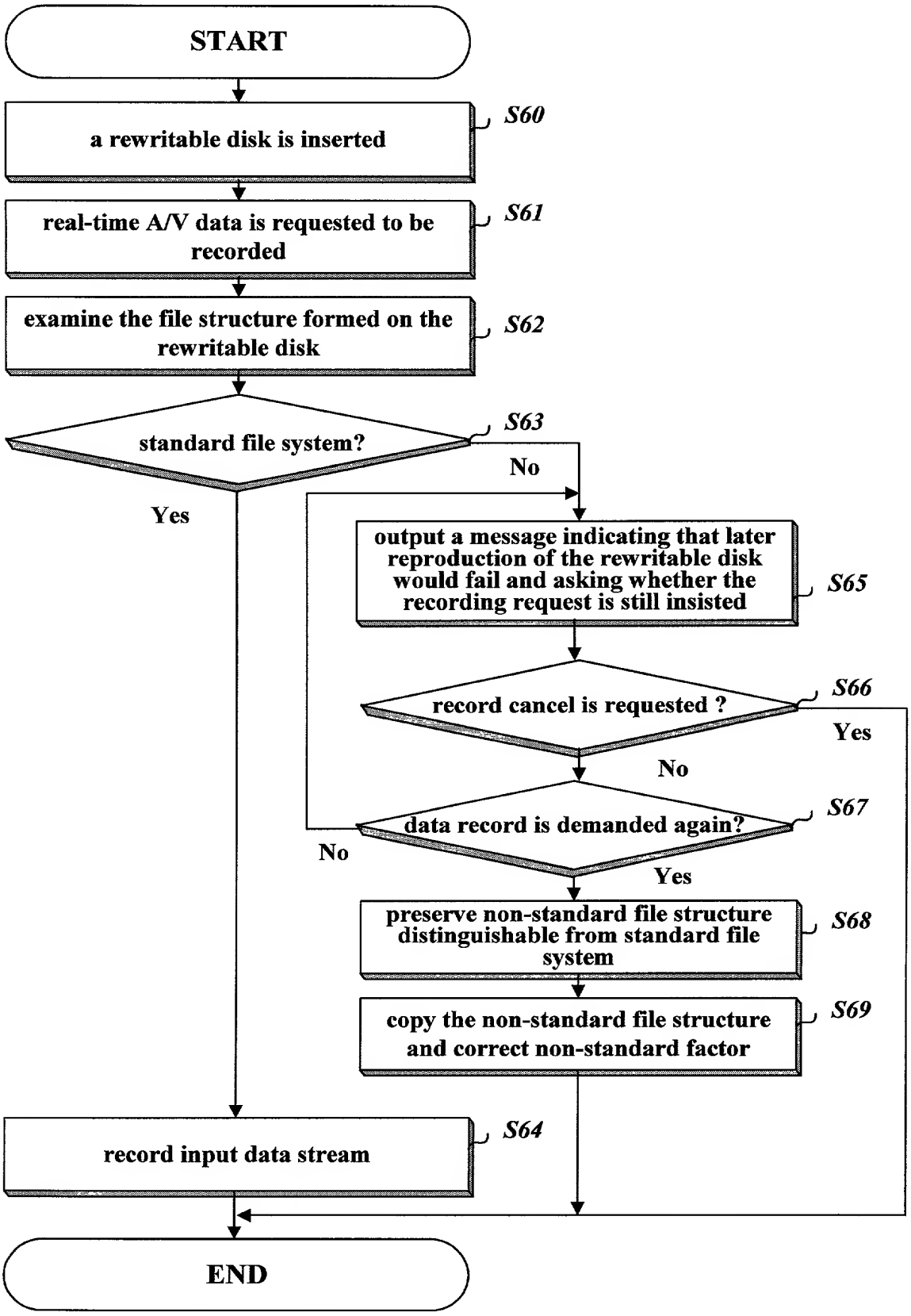

START
a rewritable disk is inserted
S60
real-time A/V data is requested to be recorded
S61
examine the file structure formed on the rewritable disk
S62
standard file system?
S63
No
Yes
output a message indicating that later reproduction of the rewritable disk would fail and asking whether the recording request is still insisted
S65
record cancel is requested ?
S66
Yes
No
data record is demanded again?
S67
No
Yes
preserve non-standard file structure distinguishable from standard file system
S68
copy the non-standard file structure and correct non-standard factor
S69
record input data stream
S64
END

FIG. 13

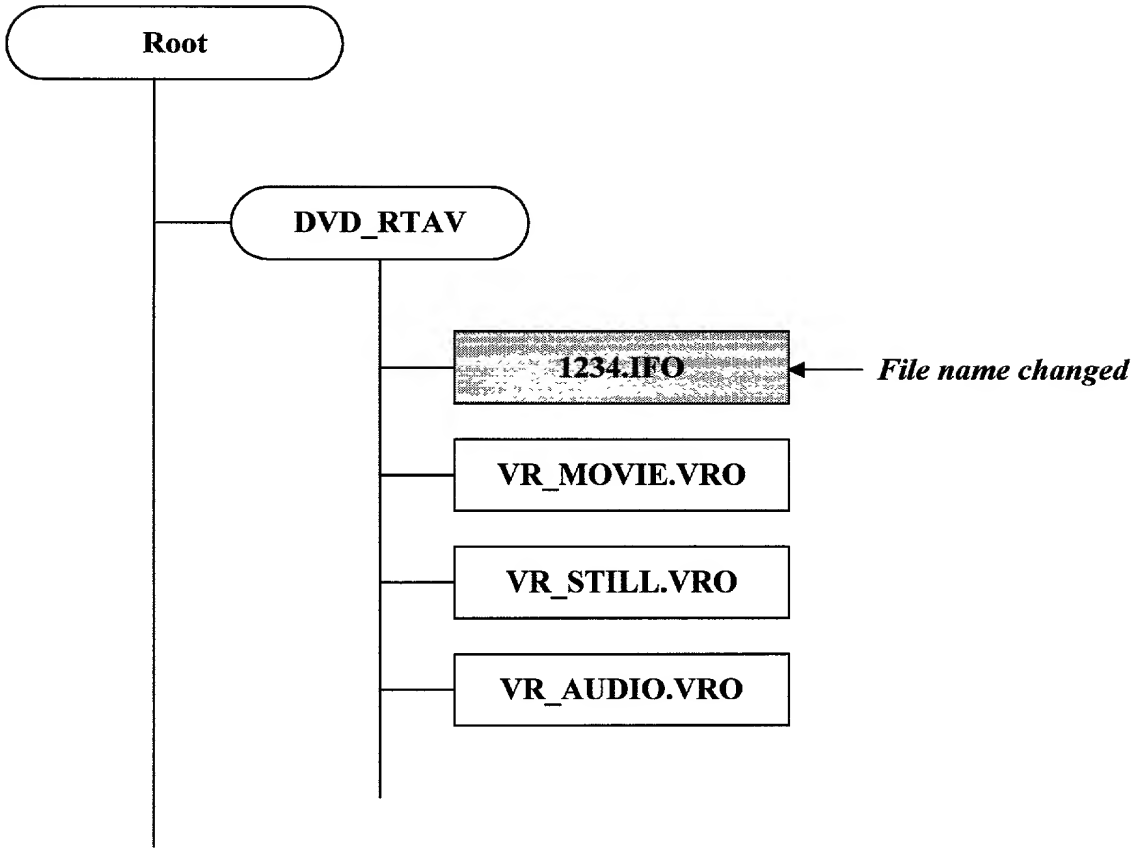

Root
DVD_RTAV
1234.IFO
File name changed
VR_MOVIE.VRO
VR_STILL.VRO
VR_AUDIO.VRO

FIG. 14

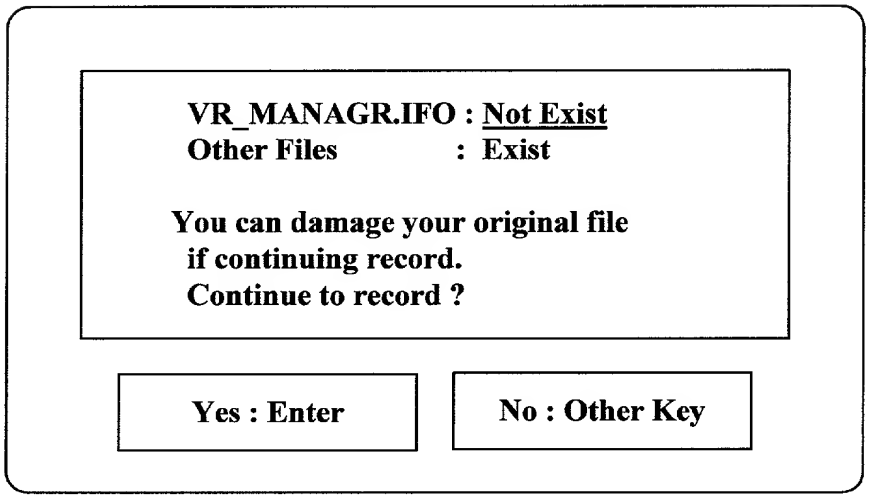

VR_MANAGR.IFO : Not Exist
Other Files : Exist
You can damage your original file
if continuing record.
Continue to record ?
Yes : Enter
No : Other Key

FIG. 15

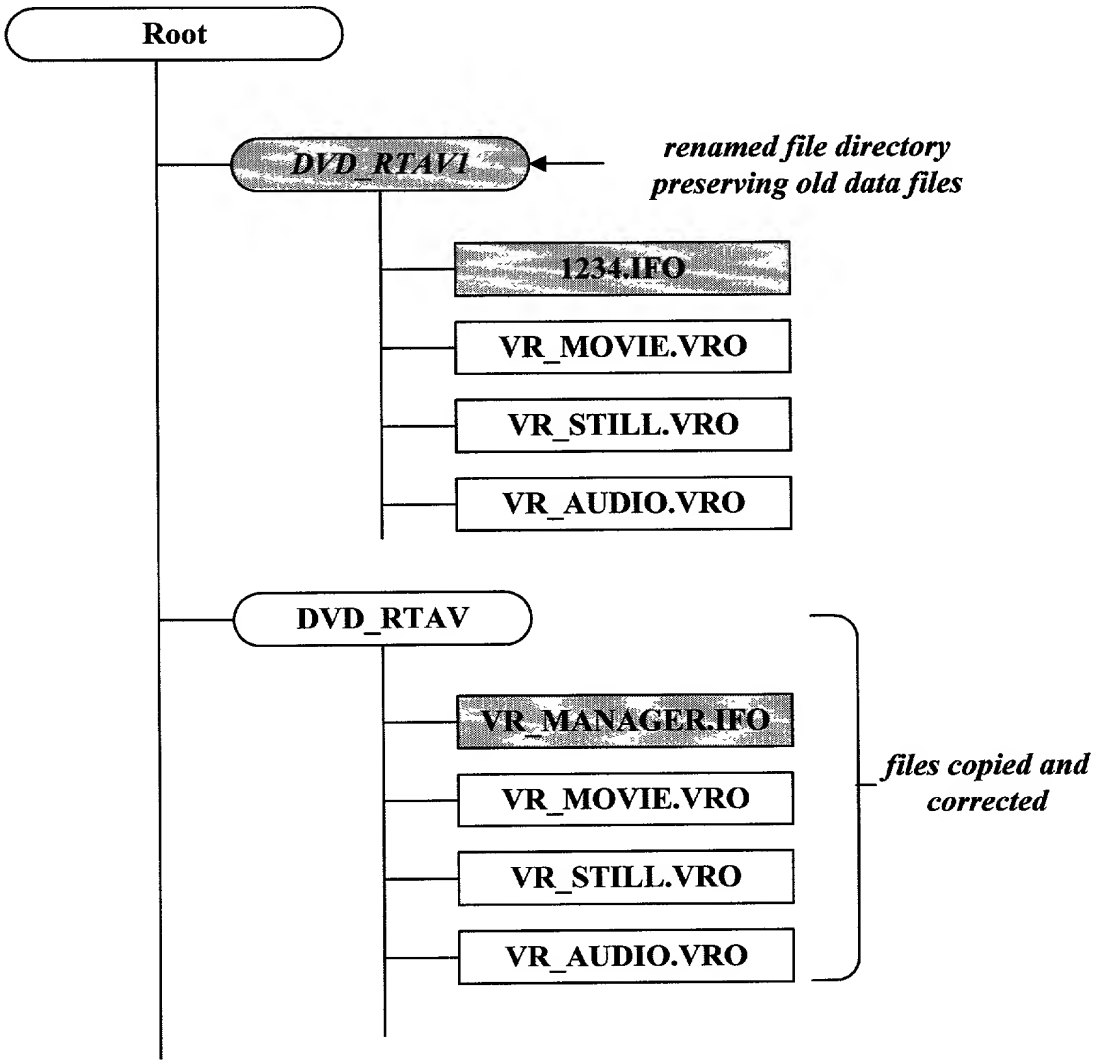
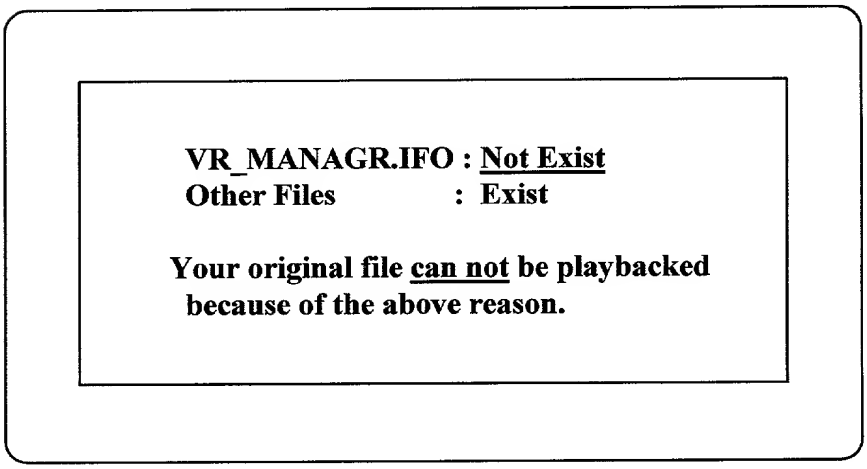

Root
DVD_RTAV1
renamed file directory
preserving old data files
1234.IFO
VR_MOVIE.VRO
VR_STILL.VRO
VR_AUDIO.VRO
DVD_RTAV
VR_MANAGER.IFO
VR_MOVIE.VRO
VR_STILL.VRO
VR_AUDIO.VRO
files copied and
corrected

FIG. 16


VR_MANAGR.IFO : Not Exist
Other Files : Exist
Your original file can not be playbacked
because of the above reason.